

## WHAT IS CLAIMED IS:

1. A monitoring method for a system including a plurality of sensors, a plurality of imaging units and a storage unit, the  
5 monitoring method comprising:

receiving outputs from the plurality of sensors and the plurality of imaging units; and

transmitting a notification signal to a preset destination if one of the received outputs corresponds to an alarm status;

10 wherein

the notification signal includes image data outputted from at least one among the plurality of imaging units associated with the sensor corresponding to the alarm status; and

the association among the plurality of sensors and the  
15 plurality of imaging units is determined and stored in the storage unit in accordance with a user's input.

2. A monitoring method for a system including a plurality of sensors and a storage unit, the monitoring method comprising:

20 receiving outputs from the plurality of sensors;

transmitting a notification signal to a preset destination if one of the received outputs corresponds to an alarm status requiring notification, based on a previously defined alarm criterion; wherein

25 the notification signal includes contact instruction information that defines whether another notification signal corresponding to the notification signal is transmitted to another destination from the preset destination receiving the notification signal; and

the contact instruction information is generated based on a notification rule that is determined in accordance with a user's input and stored in the storage unit.

5     3.     The monitoring method according to claim 2, wherein:

the other destination to which the other notification signal is transmitted is selected in accordance with a user's input and stored in the storage unit.

10    4.     A monitoring method for a system including a plurality of sensors, a plurality of imaging units and a storage unit, the monitoring method comprising:

receiving output from the plurality of sensors and the plurality of imaging units; and

15         transmitting a notification signal to a preset destination if one of the received output signals corresponds to alarm status; wherein

the notification signal includes image data from at least one among the plurality of imaging units associated with the sensor corresponding to the alarm status and a contact instruction information that defines whether another notification signal corresponding to the notification signal is further transmitted to another destination from the preset destination receiving the notification signal; and

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25         the association among the plurality of sensors and the plurality of imaging units, the contact instruction information and the other destination are generated based on notification rule that is determined in accordance with a user's input and stored in the storage unit.

5. The monitoring method according to any of claims 1 to 4 wherein the previously defined alarm criterion includes at least one of classification of the alarm status, a procedure to be taken  
5 against the alarm, priority of the alarm over others and degree of relevance thereof.

6. A monitoring method for monitoring activity in a preset location by using a plurality of sensors and transmitting a  
10 notification signal if one of the plurality of sensors captures a signal corresponding to an alarm status, the monitoring method comprising:

a monitoring step and a setting step for setting the monitoring step;

15 (1) the setting step including:

registering a plurality of sensors and a plurality of imaging units to be used in the monitoring step;

setting a logical connection between an imaging unit among the plurality of imaging units to a sensor among the  
20 plurality of sensors; and

storing the logical connection in a storage unit;

(2) the monitoring step including:

receiving outputs from the plurality of sensors and the plurality of imaging units; and

25 transmitting the notification signal to a preset destination if one of the received output signals corresponds to the alarm status, the notification signal including image data from an imaging unit and a sensor corresponding to the logical connection corresponding to the alarm status; wherein

(3) the monitoring method further comprising:

receiving a user's input for changing the logical connection stored in the storage unit.

5 7. The monitoring method according to claim 6, further comprising:

setting notification rule for determining another destination other than the preset destination and content of the notification signal;

10 storing the notification rule in the storage unit; and  
receiving a user's input for changing the notification rule stored in the storage unit.

8. The monitoring method according claim 6 wherein the  
15 previously defined alarm criterion includes at least one of classification of the alarm status, a procedure to be taken against the alarm, priority of the alarm over others and degree of relevance thereof.

20 9. A method of assisting monitoring activity performed in a designated location using a plurality of sensors, and transmitting a notification signal if one among the plurality of sensors senses an alarm status, the method being performed by a server disposed in a separate location from the designated location, the method  
25 comprising:

receiving the notification signal including contact instruction information transmitted from the designated location;

generating another notification information corresponding to the received notification signal;

determining another destination of the other notification signal based on the received contact instruction information; and  
transmitting the other notification signal to the determined other destination.

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10. The method according to claim 9, wherein the other destination includes at least one of a user, a monitoring station designated by the user and another destination designated by the user.

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11. The method according to claim 9, wherein:

the other destination includes either one among the monitoring stations, the monitoring stations including at least two monitoring stations that are operated by different security service  
15 business operators from each other.

12. A monitoring system including a plurality of sensors, a plurality of imaging units, a control unit for determining if a notification signal should be transmitted and a transmission unit  
20 transmitting the notification signal to a preset destination, the monitoring system comprising:

a storage unit storing logical connections among the plurality of sensors and the plurality of imaging units; and

a setup unit receiving a user's input and setting the logical  
25 connections in accordance with the received user's input; wherein

the control unit generates the notification signal if one of the plurality of sensors is in alarm status, and determines if the notification signal includes image data outputted from the imaging unit that is logically connected to the sensor in the alarm

status, and

the transmission unit transmits the notification signal as determined by the control unit.

- 5 13. The monitoring method according claim 12 wherein the previously defined alarm criterion includes at least one of classification of the alarm status, a procedure to be taken against the alarm, priority of the alarm over others and degree of relevance thereof.

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14. A monitoring system including a plurality of sensors, a plurality of imaging units, a control unit for determining if a notification signal should be transmitted and a transmission unit transmitting the notification signal to a preset destination, the  
15 monitoring system comprising:

a storage unit storing notification rule that is used to generate contact instruction information defining if another notification signal corresponding to the notification signal is further transmitted to another destination from the preset  
20 destination; and

a setup unit receiving a user's input and setting the notification rule in accordance with the received user's input; wherein

the control unit generates the notification signal if one  
25 among the plurality of sensors corresponds to alarm status, and generates the contact instruction information for the generated notification signal; and

the transmission unit transmits the notification signal including the contact instruction information to the preset

destination.

15. The monitoring system according to claim 14, wherein:  
the other destination to which the another notification  
5 signal is transmitted is pre-selected in accordance with a user's  
input and stored in the storage unit.

16. The monitoring method according to any of claims 14 and  
15 wherein the previously defined destination and the other  
10 destination to which the another notification signal is transmitted  
is determined according to at least one of classification of the  
alarm status, a procedure to be taken against the alarm, priority  
of the alarm over others and degree of relevance thereof.

15 17. A monitoring system including a plurality of sensors, a  
plurality of imaging units, a first server for determining if a  
notification signal should be transmitted and transmitting the  
notification signal to a preset destination, the monitoring system  
comprising:

20 an input unit accepting user's input; and  
a capture unit receiving outputs from the plurality of  
sensors and the plurality of imaging units and transmitting the  
received outputs to the first server; wherein

the first server comprises;  
25 a storage unit storing logical connections among the  
plurality of sensors and the plurality of imaging units;

a setup unit receiving a user's input from the input unit  
and setting the logical connections in accordance with the received  
user's input;

a control unit generates the notification signal if one of the plurality of sensors is of alarm status; and

a transmission unit transmitting the notification signal to a preset destination; wherein

5       the control unit determines if the notification signal includes image data outputted from the imaging unit that is logically connected to the sensor of the alarm status; and

the transmission unit transmits the notification signal as determined by the control unit.

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18. The monitoring system according to claim 17, wherein:

the storage unit further stores notification rule that is used to generate contact instruction information defining if another notification signal corresponding to the notification signal is  
15 further transmitted to another destination from the preset destination; and

the setup unit further sets the notification rule in accordance with the received user's input;

the control unit further generates the contact instruction  
20 information for the generated notification signal; and

the transmission unit transmits the notification signal including the contact instruction information to the preset destination.

25 19. The monitoring system according to claim 14, wherein:

the other destination to which the other notification signal is transmitted is pre-selected in accordance with a user's input and stored in the storage unit.



20. The monitoring method according to any of claim 18 wherein the previously defined destination and the other destination to which the another notification signal is transmitted is determined according to at least one of classification of the alarm status, a procedure to be taken against the alarm, priority  
5 of the alarm over others and degree of relevance thereof

21. The monitoring system according to claim 18, further comprising:

10 a second server, which is the preset destination, receiving the notification signal, generating another notification signal based on the received notification signal, and transmitting the generated other notification signal to the other destination in accordance with the contact instruction information received with  
15 the notification signal.

22. The monitoring system according to claim 21, wherein:

the second server transmits the other notification signal with the image data that is received with the notification signal to  
20 the other destination.

23. The monitoring system according to claim 17, wherein:

the other destination to which the other notification signal is transmitted includes at least one of a user, a monitoring station  
25 selected by the user and another destination designated by the user.

24. The monitoring system according to claim 23, wherein:

the other destination includes one of the monitoring

stations, the monitoring stations including at least two monitoring stations that are operated by different security service business operators from each other.

5 25. A capture unit connected to a plurality of sensors, a plurality of imaging units and an apparatus having a computer, the capture unit including:

a receiving section receiving parallel data from the plurality of sensors and the plurality of imaging units;

10 a buffer storing at least a part of image data outputted from the plurality of imaging units; and

a transmitting section for transmitting serial data to the apparatus, the serial data corresponding to the received parallel data.

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26. A server for receiving a notification signal from a plurality of user's monitoring apparatuses, the server comprising:

20 a receiving unit receiving notification signals from the plurality of user's apparatuses, each of the notification signals including contact instruction information that defines if another notification signal corresponding to the received notification signal is transmitted to another destination;

25 a processor generating the other notification if the notification signal is received, analyzing the contact instruction information included in the received notification signal, and determining the other destination to which the generated other notification signal is transmitted in accordance with the analysis result; and

a transmission unit transmitting the other notification

signal to the determined other destination.

27. The server according to claim 26, wherein the other  
notification signal includes image data included in the received  
5 notification signal.

28. The server according to claim 26, further comprising:  
a web server unit for generating a web page in a network  
so as to allow an authorized person's viewing of image data  
10 included in the received notification signal.

29. The server according to claim 28, further comprising:  
a storage unit for storing date and time in which the  
receiving unit receives the notification signal.  
15

30. The server according to any of claims 26 - 29, wherein the  
destination to which said generated other notification signal and  
the other destination to which the another notification signal is  
transmitted is determined according to at least one of  
20 classification of the alarm status, a procedure to be taken against  
the alarm, priority of the alarm over others and degree of  
relevance thereof.

31. The server according to claim 29, wherein:  
25 the storage unit further stores charging data for each of the  
user's monitoring apparatus for use of service provided by the  
present server, and

the processor updates the charging data in accordance with  
communications to the user's monitoring apparatus.

32. The server according to claim 31, wherein:  
the charging data includes charging amount calculated  
based on a number of times the receiving unit receives the  
5 notification signal.
33. The server according to claim 31, wherein:  
the charging data includes charging amount calculated  
based on period of time spent by the receiving unit to receive the  
10 notification signal.
34. The server according to claim 31, wherein:  
the charging data includes charging amount calculated  
based on a number of times the transmission unit transmits the  
15 other notification signal.
35. The server according to claim 31, wherein:  
the charging data includes charging amount calculated  
based on period of time spent by the transmission unit to transmit  
20 the other notification signal.
36. The server according to claim 31, wherein:  
the charging data includes charging amount calculated  
based on data volume of at least one of the received notification  
25 signal and the transmitted other notification signal.
37. A monitoring system including a plurality of sensors, a  
plurality of imaging units, a control unit for determining if a  
notification signal should be transmitted and a transmission unit

transmitting the notification signal to a preset destination, the monitoring system comprising:

a capture unit, which is connected to the plurality of sensors and the plurality of imaging units, for receiving parallel  
5 data from the plurality of sensors and the plurality of imaging units and transmitting serial data that corresponds to the received parallel data to the control unit;

a storage unit storing notification rule that is used to generate contact instruction information defining if another  
10 notification signal corresponding to the notification signal is further transmitted to another destination from the preset destination; and

a setup unit receiving a user's input and setting the notification rule in accordance with the received user's input;  
15 wherein

the control unit generates the notification signal if one of the plurality of sensors is in alarm status, and generates the contact instruction information for the generated notification signal; and

20 the transmission unit transmits the notification signal including the contact instruction information to the preset destination.

38. A computer program realizing one of the methods  
25 according to any of claims 1-9.

39. A storage medium storing a computer program to realize one of the methods according to any of claims 1-9.